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**REMARKS**

In the Office Action, the Examiner indicated that claims 1 -5, 7-9 and 11-19 are pending in the application, that claims 1-5, 7, and 12-18 are allowed, and that claims 8, 9, 11, and 19 are rejected.

An Examiner's Interview was held by telephone on June 16, 2004. Applicant thanks the Examiner for his time and presents the issues discussed during this interview in this Reply.

**Claim Amendments**

During the Examiner's Interview, the Examiner proposed minor claim amendments to claims 1 and 18. Since these suggested amendments are non-substantive and unrelated to patentability (the suggested amendments are for purposes of consistency within the claims and are formal in nature only and are unrelated to any art rejections), applicant has agreed to amend the claims in accordance with the Examiner's suggestions. These amendments are submitted herewith.

**Substance of the Examiner's Interview**

Prior to the Examiner's Interview, applicant submitted a proposed agenda for the interview via facsimile, so that the Examiner could consider, ahead of the Interview, the technical issues applicant intended to present at the Examiner's Interview. During the Examiner's Interview, the Examiner indicated that he agreed with the arguments presented, and that presentation of a formal amendment setting forth these arguments would result in

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applicant's overcoming the rejection under 35 U.S.C. §§102 and 103 based upon U.S. Patent No. 5,640,127 to Metz and Metz combined with prior art admitted in the application.

Accordingly, applicant submits the arguments below in formal format.

### **Claim Rejections, 35 U.S.C. §§102 and 103**

On page 2 of the Office Action, the Examiner rejected claims 8 and 19 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,640,127 to Metz, and that claims 9 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Metz in view of admitted prior art.

### **The Present Invention**

The present invention is directed to a transmit and receive protection circuit for use in a communication system. In the transmit and receive protection circuit, the DC currents through an input side and an output side of a four-diode gate are controlled independently. By independently controlling the DC currents through each side of the four-diode gate, more control over the DC currents through the individual diodes of a four-diode gate is achieved. This allows a four-diode gate having low AC resistance to be created in which low power AC signals on an input side of the four-diode gate are accurately reproduced on an output side of the four-diode gate.

In a first embodiment each diode of the four diode gate has an independent resistor that is used for current control; in a second embodiment, two of the four diodes have independent

resistors used for current control, and the other two diodes share a single resistor for current control.

**U.S. Patent No. 5,640,127 to Metz**

U.S. Patent No. 5,640,127 to Metz teaches a high bandwidth amplifier circuit with input protection. The input protection is achieved by providing a signal limiting diode circuit in the path to the positive input of the amplifier and a cross-over signal feed path for coupling a portion of the input signal from the input signal source side of the signal limiting diode circuit to the negative input of the amplifier. The Examiner asserts in the currently-pending Office Action that Metz teaches independent currents flowing in the diodes, and independent control thereof.

**Claim Rejections under 35 U.S.C. §102**

The MPEP and case law provide the following definition of anticipation for the purposes of 35 U.S.C. §102:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP §2131 citing *Verdegaal Bros. v. Union Oil Company of California*, 814 F.2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987)

The Examiner has asserted that Metz teaches independently controllable diode strings to carry predetermined (claim 8) or substantially the same (claim 19) DC currents.

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As presented in the Examiner's Interview, it is applicant's position that Metz does not teach or suggest independent current flowing in the diodes. More specifically, with reference to Figure 8 of Metz, if the current flowing through diode string D1 and D1a is changed, the current flowing through diode D2a will also change. For example, if the value of resistor R4 is reduced to get more current flowing to diode string D1/D1a, then the voltage across resistor R5 will increase, which means that less current will flow through diode D2a. This relationship is not an independent relationship; rather, controlling the current through one of the diode strings will, by necessity, also control or change the current flowing through the other diode string.

By way of contrast, referring to Figures 2A and 2D of the present application, there is no common resistor or DC current path between the diode strings. For example, in Figure 2A, the DC current flows are completely independent of each other, that is, you can change the resistance value of resistor 126, which will change the current flow through diode string 106 and 108, but this changing of the R value of resistor 126 will not affect the current flow through diode string 102 and 104. Thus, as claimed in claims 8 and 13, the diode strings are completely independently controllable, whereas in Metz they are dependent upon each other.

### **Conclusion**

The present invention is not taught or suggested by the prior art. Claims 1-5, 7, and 12-18 have been allowed. Claims 8, 9, 11, and 19 patentably define over the prior art for the

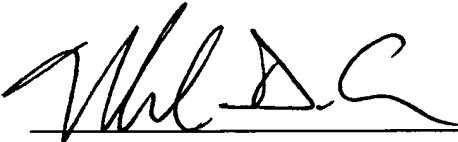
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reasons set forth herein. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims. An early Notice of Allowance is earnestly solicited.

The Commissioner is hereby authorized to charge any additional fees associated with this communication to Deposit Account No. 19-5425.

Respectfully submitted,

6/17/04  
Date

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